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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,829	04/18/2005	Jean-Ho Song	21C-0191	2222
23413 7590 02/06/2009 CANTOR COLBURN, LLP 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER NGUYEN, DUNG T				
ART UNIT		PAPER NUMBER		
2871				
NOTIFICATION DATE		DELIVERY MODE		
02/06/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

Office Action Summary

Application No.

10/531,829

Applicant(s)

SONG ET AL.

Examiner

Dung Nguyen

Art Unit

2871

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date 4/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's amendment dated 10/23/2008 has been received and entered. Claims 1-14, 23-28 and newly added claim 29 are now pending in the application. Claims 15-22 stand withdrawn from consideration as non-elected claims

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 2 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 2 recite a limitation of "the first insulation layer *electrically* couples with the second portion of the first electrode" (emphasis added) which is not disclosed in the specification; and such a way, one skilled in the art would not be able to connect with the invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, it is confusing and unclear how the first insulation layer can be electrically coupled with the second portion of the first electrode. Correction to the claim language is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-10, 12-14 and 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's submitted prior art, Kim et al., WO 01/45283, in view of Kikkawa et al., US 6,879,359.

Regarding the above claims, Kim et al. disclose a liquid crystal display (LCD) device (figures 4-6) comprising:

- . a first substrate (11) having a plurality of unit cells (figure 6), each cell including a sensor thin film transistor (TFT) (12), a storage device (14/15/16) and a first switch TFT (13), a second insulating layer (see figure 5). It is noted that a data reading part and a first gate driving part (fingerprint reading section 100 and control section 400) inherently formed over the first substrate to function/control the sensor TFT and the switch TFT;

- . an LCD panel inherently having a second substrate and a liquid crystal layer attaching to the first substrate (figure 4);

- . a sensor output signal line (output $n/n+1$);

. a light shielding layer (13-sh)

Kim et al. do not explicitly disclose the LCD panel having first transparent electrode, a second substrate having a second transparent electrode, a color filter and a second switch TFT; Kikkawa et al. do disclose an LCD (figure 3) having first transparent electrode (34), a second substrate (21) having a second transparent electrode (31), a color filter (30) and a second switch TFT (22/26/27), a first insulating layer (32). In addition, a data driver part and a second gate driver part (control section 400) would be formed over the second substrate to control the switch TFT. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to combine the Kikkawa et al. LCD panel into the Kim et al. fingerprint terminal in order to obtain an LCD device having both a data display function and a fingerprint capture function.

It is noted that claims 2 and 11 neither rejected nor indicated allowable since the scope of claim is unclear as noted above.

Response to Arguments

7. Applicant's arguments filed 10/23/2008 have been fully considered but they are not persuasive.

. Applicant's arguments are as follow:

a. Kim does not teach or suggest a first substrate including a first transparent electrode, the first transparent electrode being disposed on a lower surface of the first substrate, and a liquid crystal layer interposed between the first and second substrates, wherein the liquid crystal layer contacts the first substrate of amended Claims 1, 10 and 23.

b. Applicants respectfully submit that the theory of inherency is normally reserved for rejections under 35 U.S.C. § 102. *In re Grasselli*, 318 U.S..P.Q. 303 (Fed. Cir. 1983), and that the instant claim rejection relying on "inherency" is improper and should be withdrawn.

c. Applicants respectfully submit that there is *no teaching or suggestion* in Kim, and *no suggestion or knowledge generally available to one of ordinary skill in art* that would lead that individual to directly attach a liquid crystal layer of an LCD to the fingerprint reader 10/11 of Kim as evident from Kikkawa.

d. The rejection details on Page 3 of the instant Office action merely allege without further explanation as to how or where Kim and Kikkawa teach the (first portions of the) data line/data wiring, the first electrode of the second switch TFT, the (first portions of the) gate line, the second electrode of the second switch TFT, the color filter disposed on the gate line and the data line/data wiring, and the insulating layer disposed covering the data wiring, of Claims 1, 10 and 23, respectively.

e. Applicants respectfully submit that Kim and Kikkawa, alone or in combination, do not teach or suggest, and are in fact silent about all of the limitations of at least Claims 1, 10 and 23, there exists no suggestion or motivation in the references or to one of ordinary skill in the art to modify or combine Kim and Kikkawa to teach the claimed invention. Therefore, primefacie obviousness further does not exist regarding at least Claims 1, 10 and 23 with respect to Kim and Kikkawa.

f. Kim and Kikkawa, alone or in combination, do not teach or suggest, and are in fact silent as to teaching the second substrate further comprises a first insulation layer disposed

between the color filter layer and the second transparent electrode to cover the color filter layer, the first insulation layer electrically coupled with the second portion of the first electrode.

The Examiner's responses are as follow:

a. It should be noted that the Kim et al liquid crystal panel 3 is directly attached to the finger print reader 10; and thus, the combination of the Kim et al. device and the Kikkawa et al. panel would result a display panel directly attached to the fingerprint reader as well. In addition, the Kikkawa et al. upper substrate would be a support (e.g., substrate) for the finger print reader as well; therefore, the liquid crystal layer would be directly contacted to the fingerprint reader lower substrate (e.g., Kikkawa et al. upper substrate).

b. "inherency" theory is not limited to 102 since its term is denoted for the well known things as well; therefore, it can be applied for 103 rejection as well.

c. as explained in part a., the Kikkawa et al. upper substrate can be directly attached to the lower substrate of the fingerprint reader and it can be formed together for a compact display device purposes.

d. The Examiner respectfully disagrees with Applicant's viewpoint since Kim et al. and Kikkawa et al. clearly shown data line/data wiring 12, the first electrode 14 of the second switch TFT (thin film transistor of the fingerprint reader device)(see Kim et al. figure 5), the (first portions of the) gate line 22, the second electrode (26) of the second switch TFT (Kikkawa et al. TFT), the color filter (30) disposed on the gate line (connected to gate electrode 22) and the data line/data wiring (27), and the insulating layer (32) disposed covering the data wiring (see Kikkawa et al. figure 3).

e. as noted in d., the combination of Kim and Kikkawa et al. does disclose and met the limitation of the claimed invention.

f. as noted above, claims 2 and 11 is not clear, so as such claims need clarify as well.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
02/02/2009

*/Dung T. Nguyen/
Primary Examiner
Art Unit 2871*